

1 **Section 5-1400**

Buffering and Screening.

2
3 **5-1401**

Purpose. The purpose and intent of this Section is to facilitate the creation of a convenient, attractive and harmonious county; to conserve natural resources including adequate air and water; to preserve the character of an area by preventing or mitigating the harmful effects of one use on another use; and to preserve and promote the health, safety and general welfare to the public. More specifically, this Section is intended to mitigate the effects of uses on adjacent uses by requiring a screen and/or buffer between the uses in order to minimize the harmful impacts of noise, dust and other debris, motor vehicle headlight glare or other artificial light intrusion, and other objectionable activities or impacts conducted on or created by an adjoining or nearby use. Also, this Section is intended to require the landscaping of parking lots in order to reduce the harmful effects of heat and noise and the glare of motor vehicle lights; to preserve underground water reservoirs and to permit the return of precipitation to the ground water strata; to enhance the natural drainage system and ameliorate storm water drainage problems; to reduce the level of carbon dioxide and return pure oxygen to the atmosphere; to prevent soil erosion; and to provide shade.

19
20 **5-1402**

Applicability.

21
22 (A) The provisions of this Section shall apply to all development where site plans and/or subdivisions are filed in accordance with the provisions of Section 6-700 of this Ordinance or the Land Subdivision and Development Ordinance.

23
24
25
26
27 (B) The provisions of this Section are intended to complement the regulations of Section 5-1300 of this Ordinance. Trees planted to fulfill the Canopy requirements of Section 5-1300 may also fulfill the Buffering and Screening requirements of this Section. However, where any provision of this Section imposes restrictions or standards different from those of Section 5-1300 or any other County ordinance or regulation or other provision of law, whichever provisions are more restrictive or impose higher standards shall control, unless the intent is clearly otherwise.

36
37 **5-1403**

Standards. The following standards shall apply to the installation and maintenance of all landscaping and screening required by the provisions of this Section.

38
39
40
41 (A) The planting and maintenance of all trees and shrubs shall be in accordance with the provisions of Facilities Standards Manual, and the following requirements:

- 1 (1) The installation of all landscaping shall be done following the
2 procedures established by the American Association of
3 Nurserymen.
4
5 (2) At the time of planting, all canopy trees shall have a minimum
6 caliper of one (1) inch dba, and all understory trees shall have a
7 minimum height of six (6) feet. Evergreen trees shall be a
8 minimum of six (6) feet in height. Evergreen shrubs shall have
9 a minimum height of thirty (30) inches. Dwarf deciduous
10 shrubs shall have a minimum height of eighteen (18) inches.
11
12 (B) Existing vegetation which is suitable for use in compliance with the
13 requirements of this Section, when supplemented by new vegetation, if
14 needed, so as to provide buffering and screening in accordance with the
15 purpose and intent of this Section, may and should be used as required
16 planting.
17
18 (C) In addition to the standards set forth in this Section, the Board of
19 Supervisors or the Board of Zoning Appeals may require more stringent
20 requirements as part of an approval action of a special exception,
21 variance, or as part of proffered conditions.
22
23 (D) All landscaping shall permit site distances consistent with all current
24 code requirements of Loudoun County and VDOT.
25

26 **5-1404 Landscaping Plan.**
27

- 28 (A) Except as permitted by the provisions of Section 5-1305 below, a
29 landscaping plan, including a parking lot landscape and screening plan,
30 shall be submitted as part of every final site plan required by the
31 provisions of Section 6-701.
32
33 (B) Such landscaping plans shall be drawn to scale, including dimensions
34 and distances, and shall delineate existing and proposed buildings,
35 parking spaces or other vehicle areas, access aisles, driveways, and the
36 location, size, and description of all landscaping materials and the
37 installation schedule if materials are to be installed in phases extending
38 beyond 90 days from the date of occupancy of the building or structure
39 to which they are appurtenant.
40
41 (C) The landscaping measures, as required by this Section shall be shown on
42 such initial plan and shall be completed or bonded in accord with current
43 County policy according to specifications prior to approval of any
44 Certificate of Occupancy.

1 **5-1405**

2 **Buffer Yards and Screening, General Provisions.**

- 3 (A) Buffer yards and screening shall be provided in accordance with the
4 Buffer Yard and Screening Matrix set forth in Section 5-1414(A), and in
5 accordance with the provisions of this Section and Section 5-1406, 5-
6 1407 and 5-1408 below.
- 7
- 8 (B) Buffer yards and screening shall be provided within the zoning district
9 and on the lot whose use is indicated in the left column of the matrix
10 where it is contiguous or across the street from land used or zoned for
11 uses indicated across the top of the matrix.
- 12
- 13 (C) Where the structure or lot or development is to contain more than one
14 use or category of uses as presented in the matrix, the more stringent
15 requirements of the matrix shall apply; provided, however, that the
16 Zoning Administrator may reduce and/or modify the requirements of
17 the matrix upon a finding that the need for the more stringent
18 requirements has been partially mitigated or eliminated by the
19 arrangement of uses.
- 20
- 21 (D) The uses in the matrix are listed in abbreviated form. Other similar uses,
22 as may be included in a listing presented in the district regulations, shall
23 be subject to the same regulations as are presented for a use listed on the
24 matrix.
- 25
- 26 (E) In those instances where a proposed use and/or an existing use on the
27 abutting property is not listed in the matrix, the Zoning Administrator,
28 using the matrix as a guide, shall determine to what extent buffering
29 and screening shall be provided.
- 30
- 31 (F) In addition to the standards set forth in herein for a particular use, all
32 uses allowed by special exception, or variance in a given district, shall
33 be required to provide buffer yards as determined by the BZA or Board
34 of Supervisors, as the case may be, using the matrix as a guide.
- 35

36 **5-1406**

37 **Determination of Buffer Yard Requirements.** To determine the type of buffer
38 yard required between two (2) adjacent parcels or between a parcel and a use
39 across the street, refer to the buffer yard and screening matrix, and identify the
40 buffer yard required pursuant to one of the following procedures:

- 41 (A) **Proposed development adjacent to an improved property that is a**
42 **pre-existing use which existed prior to the effective date of this**
43 **Ordinance.**

- 1 (1) If the proposed use is in the same land use category or is a
2 more intensive than the pre-existing use, the proposed use must
3 provide the buffer yard type as required by the Buffer Yard and
4 Screening Matrix.
5
6 (2) If the proposed use is less intensive than the pre-existing use,
7 the proposed use must provide the buffer yard type that would
8 have been provided by the existing more intensive use as if it
9 were subject to the requirements herein.
10
11 (3) The Zoning Administrator may waive reduce and/or modify
12 the requirement if it presents a substantial hardship or is
13 considered unnecessary as identified in Section 5-1409.
14

15 (B) **Proposed development adjacent to a use developed subsequent to**
16 **the effective date of this Ordinance.** The proposed use must install
17 plant units in order to bring the total buffer yard required between the
18 two uses into conformance with the Buffer Yard and Screening Matrix.
19

20 (C) **Proposed Development Adjacent to a Vacant Property.** To
21 determine the buffer yard type for a proposed development which will
22 be constructed adjacent to vacant land, the Zoning Administrator must
23 first make a determination on the probable future use of the adjacent
24 vacant land, using the Comprehensive Plan, Zoning Ordinance and
25 Zoning District Map.
26

27 (1) If the proposed use is more intensive than the probable future
28 use of adjacent vacant land, as determined by the Zoning
29 Administrator, then the proposed use must provide a buffer as
30 required by the Buffer Yard and Screening Matrix.
31

32 (2) If the subsequent use of the adjacent vacant land is more
33 intensive than the probable use determined by the Zoning
34 Administrator, and the subsequent use is required to provide a
35 buffer prescribed in the Buffer Yard and Screening Matrix, the
36 buffer yard installed by the first use may be taken into
37 consideration by the Zoning Administrator in considering a
38 reduction of required buffer.
39

40 (3) If the subsequent use of the adjacent vacant land is less
41 intensive than the probable use determined by the Zoning
42 Administrator, the subsequent use must install the difference
43 between the plant units installed by the pre-existing adjacent
44 use and the number of plant units required by the Buffer
45 Yard and Screening Matrix.

- 1 (4) If the proposed use is less intensive than the probable future
2 use of the vacant land, as determined by the Zoning
3 Administrator, no buffer yard shall be required of the proposed
4 use.

5
6 (D) **Contractual Reduction of Buffer Yard Abutting Vacant Land.**
7 When a land use is proposed adjacent to vacant land, the owners of both
8 parcels may enter into a contractual relationship to provide for a buffer
9 yard equivalent to the buffer yard which shall ultimately be required.
10 Such a contract shall include:

- 11
12 (1) A statement by the owner of the vacant land of an intent to
13 develop at no greater than a specified land use category
14 consistent with reduced buffer yards.
15
16 (2) An agreement that the owner of the vacant land assumes all
17 responsibility for additional buffer yards required by the
18 development of his parcel with a more intense use than had
19 been agreed upon.
20
21 (3) The contract shall be in the form of a covenant or deed
22 restriction, recorded in the Office of the Clerk of the Circuit
23 Court of Loudoun County, Virginia, which shall run with the
24 land.
25

26 (E) **Special Situations.**

- 27
28 (1) When the adjacent land is used for a wayside stand or other
29 temporary use, the buffer yard type shall be determined as if
30 the adjacent property were vacant as provided in Section 5-
31 1406(C).
32
33 (2) If any property adjoins any existing or planned arterial road,
34 except in the A-3, A-10, AR-1 or AR-2 district or where the
35 Buffer Yard Type 5 is required by this Section, the required
36 buffer yard shall be in accordance with Buffer Yard Type 3,
37 however, such buffer yard landscaping shall be supplemented
38 by a landscaped earthen berm at least four (4) feet in height and
39 not to exceed a slope of 2:1. This requirement may be waived
40 modified, and/or reduced, or the location of the required berm
41 may be adjusted by the Zoning Administrator, where necessary
42 to preserve existing mature trees. No buffer yard shall be
43 required for the A-3 and A-10 districts where such property
44 adjoins any existing or planned arterial road.
45

(3) If any adjoining property is located within a zoned municipality, the Zoning Administrator shall investigate the applicable municipal zoning district regulations and shall determine which district established by this Ordinance is most equivalent. Requirements for buffer yards shall then be the same as if the adjoining property were zoned in the equivalent County zoning district.

(4) Notwithstanding the buffering and screening requirements of Sections 5-1414(A) and 5-900(C) - for any property that adjoins Route 50 between the Fairfax County line and Lenah Farm Lane on the north side and Lenah Road on the south side, the required buffer yard adjacent to Route 50 shall be in accordance with Buffer Yard Type 5.

5-1407 Buffer Yard and Screening Requirements.

(A) **Location.** Buffer yards shall be located along the perimeter of a lot or parcel. Where a parcel extends into the center line of an existing road, the buffer yard shall begin at and extend inward from the ultimate right-of-way line of said road. Buffer yards shall extend to the lot line, parcel boundary or rights-of-way line, except where easements, covenants or natural features may require the buffer yard to be set back from the property line, in which event the buffer yard shall be in addition to such easements, covenants or natural features. Buffer yards shall be provided within the required minimum yard setback areas. If the minimum buffer width is larger than the yard setback, the minimum buffer width must be provided.

(1) In the case of driveways, parking areas, and accessory structures permitted within required yard setbacks, at least fifty (50) percent of the area of the required minimum yard setback area shall consist of permeable materials.

(2) If parking and/or loading is permitted within the required minimum yard setback area, then Section 5-1413 "Parking Lot Landscaping and Screening Requirements" shall prevail.

(B) Screening Requirements in Buffer Yards.

(1) Buffer yard requirements are stated in Section 5-1414(B).

(2) Those plant materials identified in Section 5-1414(C) or their equivalents shall satisfy the requirements of this Section.

- (3) Whenever a wall, fence, and/or berm is required within a buffer yard, they shall be provided in addition to the plant units required.

5-1408

Use of Buffer Yards. A buffer yard may be used for passive recreation and it may contain pedestrian, bicycle or equestrian trails, provided that: a) minimal plant materials are eliminated, b) the total width of the buffer is maintained, and c) all other regulations of this Ordinance are met. Utility easements may be included within buffer yards provided that the utility requirements and buffer yard requirements are compatible and canopy trees are not planted within said easement. Vehicular entrances may cross a buffer yard. Signs, pursuant to Section 5-1200, may be located in the buffer yards.

5-1409

Buffer Yard Waivers and Modifications. Buffer yard requirements may be waived or modified by the Zoning Administrator in any of the following circumstances. The Zoning Administrator may attach conditions to any waiver or modification in order to assure that the results of the waiver or modification will be in accordance with the purpose and intent of this Section.

- (A) Where the strict provisions of this Section would reduce the usable area of a lot configuration or size to a point which would preclude a reasonable use of the lot, buffer yards may be waived, reduced and/or modified by the Zoning Administrator, upon showing that the building and/or the yard has been designed to minimize adverse impact through a combination of architectural, landscape and/or other design techniques.
- (B) The Zoning Administrator may waive, reduce and/or modify buffer yard requirements if in his opinion the topography of the lot providing the buffer yard and the lot being protected is such that the required buffer yard would not be effective.
- (C) The Zoning Administrator may waive, reduce and/or modify buffer yard requirements for single family attached dwelling units where a six (6) foot permanent fence has been provided to enclose a privacy yard (for rear yards and side yards) and such fence is architecturally designed and coordinated with landscape techniques to minimize adverse impact to adjacent properties.
- (D) The Zoning Administrator may waive, reduce or modify buffer yard requirements for any public use when such use has been specifically designed to minimize adverse impact on adjacent properties.
- (E) **Buffer Yard Exceptions.** When a land use is proposed adjacent to a lake, wetland, or other natural area, which is to remain undeveloped, and which is at least three hundred (300) feet in width, the Zoning

1 Administrator may waive, reduce, and/or modify the buffer
2 requirements provided the intent of these regulations are preserved.
3

4 (F) The Zoning Administrator may waive, reduce and/or modify buffer yard
5 requirements for side and rear yards where lots zoned MR-HI, GB, PD-
6 IP, PD-GI, MR-HI or CLI abut, upon finding that such waiver, reduction
7 and/or modification is designed to complement proposed development
8 of existing or proposed uses. In any case, a screen wall of a minimum
9 six (6) foot in height or buffer yard shall be constructed where such side
10 or rear yard is visible from the public right-of-way.
11

12 (G) The Zoning Administrator may waive, reduce and/or modify buffer
13 requirements for a telecommunications monopole which is co-located
14 on a facility which is owned or controlled by a public use or fire and/or
15 rescue company, or in areas planned or zoned for employment and
16 industrial uses where such use is permitted by right, provided the site is
17 architecturally designed and coordinated with landscape techniques to
18 minimize adverse impacts to adjacent properties.
19

20 (H) The Zoning Administrator, upon recommendation by the Loudoun
21 County Sheriff's office, may waive, reduce or modify the screening
22 requirements for any school use, upon finding that the screening
23 requirements obstruct visibility and create a security concern.
24

25 **5-1410 Maintenance.**
26

27 (A) The owner, or his agent, shall be responsible for the maintenance, repair
28 and replacement of all required landscape materials and screening and
29 buffering as may be required by the provisions of this Section.
30

31 (B) All plant material shall be tended and maintained in a healthy growing
32 condition, replaced when necessary and kept free of refuse and debris.
33

34 (C) Fences and walls shall be maintained in good repair. Openings within
35 the barriers may be required by the Zoning Administrator for
36 accessibility to an area for necessary maintenance.
37

38 **5-1411 Bond/Cash Deposit Requirements.** In lieu of installation of the landscape
39 materials prior to occupancy, the applicant may post a bond acceptable to the
40 County, conditioned upon satisfactory installation of the landscaping proposed in
41 the landscape plan.
42

43 **5-1412 Appeals.** Any person aggrieved by a decision of the Zoning Administrator may
44 appeal such decision in accordance with the provisions of Section 6-1700.

Parking Lot Landscaping and Screening Requirements.

(A) General. Parking lot landscape and screening plan shall comply with the general standards in Section 5-1403 and 5-1404.

(1) Existing vegetation which is suitable for use in compliance with the requirements of this Section when supplemented so as to provide planting and screening in accordance with the purpose and intent of this Section, may and should be used as required planting. Additionally, vegetation which fulfills the requirements set forth herein for exterior parking lot screening may also be counted toward fulfilling the requirements for buffer yards set forth in other sections of these regulations.

(2) When non-residential parking lots, travelways, alleys, loading spaces and like uses adjoin land zoned or planned for residential use, there shall be an opaque barrier constructed to provide a separation between the two uses. This can be achieved by a solid type fence no less than six (6) feet in height, or with densely planted shrubs and berms to provide a visual barrier. Berms shall not exceed a slope of 2:1.

(B) **Interior Parking Lot Landscaping.**

(1) Any parking lot, excepting single bay parking lots of twenty (20) spaces or less, shall be provided with landscaped open space along the perimeter of the parking area or areas, in the minimum rate of one (1) canopy tree per ten (10) spaces which shall be so located that no parking space is more than eighty (80) feet from a portion of the landscaped open space or parking island more than eighty (80) feet from a canopy tree. Landscaped areas between parking areas and buildings shall not be considered as interior landscaping.

(2) The primary landscaping materials used in parking lots shall be canopy trees. Where possible, grouping of such trees is encouraged. Shrubs and other live planting materials may be used to complement the tree landscaping, and shall count towards the required landscaping.

(3) The landscaping areas shall be reasonably dispersed throughout the parking lot, and shall have a minimum width of six (6) feet measured from back of curb. There shall be a minimum six (6)

1 foot wide (back of curb to back of curb) curbed landscape
2 island at the end of every row of parking - equal in length to
3 the adjoining parking space.
4

5 (4) There shall be a minimum of one (1) canopy tree per required
6 landscape island. Where more than one island is combined in a
7 linear configuration, canopy trees shall be provided at a
8 minimum equal to the number of required landscape islands.
9

10 (5) The interior dimensions of any planting area shall be sufficient
11 to protect all landscaping materials planted therein; in any case
12 a landscaped island shall be protected with a six (6) inch
13 minimum curb.
14

15 (6) Areas used principally for storage of vehicles do not require
16 interior islands if such areas are screened from adjacent
17 properties and public streets in accord with Section 5-1406 and
18 5-1407.
19

20 (C) **Peripheral Parking Lot Landscaping.** If any parking lot contains ten
21 (10) or more spaces peripheral parking lot landscaping shall be required
22 as follows:
23

24 (1) **When the property line abuts land other than street right-**
25 **of-way.**
26

27 (a) Except where otherwise stated in this Ordinance, a
28 landscaping strip ten (10) feet in width measured from
29 the edge of pavement, shall be located between the
30 parking lot and the abutting property lines, except where
31 driveways or other openings may necessitate other
32 treatment.
33

34 (b) Parking and vehicular traffic circulation lanes shall be
35 screened with either berming, landscaping, or a
36 combination of both to a minimum height of thirty (30)
37 inches. Berming height of thirty inches shall not exceed
38 a minimum slope of 2:1.
39

40 (c) All service areas shall be screened from view through
41 the use of evergreen plant materials and screen walls,
42 compatible with the building design. Service area
43 screen walls, solid fences or fences shall be softened
44 with climbing vines, shrubs, or other plant materials.
45 Plantings shall be a minimum height of six (6) feet and

1 totally screen at least 75% of any one wall surface
2 (exclusive of gates).
3

4 (d) All utility equipment (i.e. meters, pedestals,
5 transformers, etc.) not within the screened service area
6 shall have a natural evergreen planting screen provided,
7 but such plantings shall be planned and installed so as
8 not to hinder the installation or maintenance of such
9 utility equipment.
10

11 (e) Peripheral plantings shall include six (6) shrubs per forty
12 (40) linear feet of abutting land, and one of, or a
13 combination of the following, which need not
14 necessarily be installed on center:
15

16 (i) One understory tree per fifteen (15) linear feet;
17

18 (ii) One canopy tree per thirty-five (35) linear feet.
19

20 (2) **Where the property line abuts the street right-of-way.**
21

22 (a) Except where otherwise stated in this Ordinance, a
23 landscaping strip ten (10) feet in width, exclusive of a
24 required sidewalk or trail, shall be located between the
25 parking lot and right-of-way line.
26

27 (b) Parking and vehicular traffic circulation lanes shall be
28 screened with either berming, landscaping, or a
29 combination of both to a minimum height of thirty (30)
30 inches. Berming shall not have a slope steeper than 2:1.
31

32 (c) All service and loading areas shall be screened from
33 view through the use of evergreen plant materials and
34 six (6) foot solid fences or screen walls compatible with
35 the building design. Service and loading area screen
36 walls or fences shall be softened with climbing vines,
37 shrubs, or other plant materials. Plantings shall be a
38 minimum mature height of six (6) feet at time of
39 installation and totally screen at least seventy five
40 percent (75%) of any one wall surface (exclusive of
41 gates).
42

43 (d) All utility equipment (i.e. meters, pedestals,
44 transformers, etc.) not within the screened service area
45 shall have a natural evergreen planting screen
46 provided,

1 but such planting shall be planned and installed so as
2 not to hinder the installation or maintenance of such
3 utility equipment.
4

5 (e) At least one (1) tree for each twenty-five (25) linear feet
6 of land abutting any right-of-way shall be planted in the
7 landscaping strip; however, this requirement shall not be
8 construed as requiring the planting of trees on twenty-
9 five (25) foot centers.
10

11 (f) Where peripheral landscaping required by this Section
12 conflicts with street planting regulations of the Virginia
13 Department of Transportation, the more restrictive
14 standards shall apply.
15

16 (D) **Requirements for Parking Lots in Residential Districts.** Where
17 parking lots for more than ten (10) cars are permitted or required in
18 residential districts, the following provisions shall be complied with:
19

20 (1) The lot may be used only for parking and not for any type of
21 commercial loading, sales, dead storage, repair work,
22 dismantling or servicing.
23

24 (2) A ten (10) foot wide landscaped open space area adjoining any
25 street line or any lot zoned or planned for residential uses shall
26 be provided, guarded with wheel bumpers or curb and gutter
27 and planted in grass and/or shrubs.
28

SECTION 5-1414(A) - BUFFER YARD AND SCREENING MATRIX

ADJACENT LAND USE GROUPS

PROPOSED LAND USE GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13
Group 1	N/A												
Dwelling, Single Family Detached													
Group 2	1	1	1	2	2	2	3	3	4	4	4	4	2
Dwelling, Single Family Attached													
Group 3	1	1	1	2	2	2	3	3	4	4	4	4	2
Dwelling, Multi-Family													
Congregate Housing Facility													
Continuing Care Facility													
Orphanage or other similar institutions													
Group 4	2	2	2	2	2	2	3	3	4	4	4	4	2
Day Care Center													
Church, Chapel													
Nursery School													
Elementary School													

SECTION 5-1414(A) - BUFFER YARD AND SCREENING MATRIX

PROPOSED LAND USE GROUPS	ADJACENT LAND USE GROUPS												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Group 5	2	2	2	2	2	3	3	4	4	4	4	N/A	
Middle and High School													
Community & Recreation Center,													
and Library													
Auditorium, Performing Arts Center													
and Assembly Hall, and Theater (indoor)													
Municipal and Governmental Building													
and Structure													
Fire, Police, and Rescue Station													
Medical Care Facility													
Hospital													
Group 6	2	2	2	2	2	N/A	N/A	N/A	3	4	4	4	N/A
Financial Institution													
Office													
Business Service Establishment													
Retail Sales Establishment													
Health & Fitness Center													
Funeral Home, Mortuary, Crematory													
Personal Service Establishment													
Group 7	3	3	3	3	3	N/A	N/A	N/A	3	4	4	4	N/A
Restaurant													
Hotel and Motel													

SECTION 5-1414(A) - BUFFER YARD AND SCREENING MATRIX - ATTACHMENT A

ADJACENT LAND USE GROUPS														
PROPOSED LAND USE GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13	
Group 8	3	3	3	3	3	2	N/A	N/A	N/A	4	4	4	N/A	
Drive-in Bank Facility														
Fast Food Restaurant														
Drive Through Restaurant														
Auto Service Station														
Car Wash														
Mobile Home Sales and Service														
Motor Vehicle Sales and Service														
Parking Lot/Valet Service														
Group 9	4	4	4	4	4	4	4	N/A	N/A	4	4	4	N/A	
Utility Transmission Facility														
Public Utility Service Center, Storage Yard														
Telecommunication Facility														
Radio & Television Broadcasting Station, including Recording Studio														
Municipal or Governmental Storage Yards & Related Facility														
Water Treatment and Distribution Facility														
Kennel, outdoor														

SECTION 5-1414(A) - BUFFER YARD AND SCREENING MATRIX - ATTACHMENT A

ADJACENT LAND USE GROUPS													
PROPOSED LAND USE GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13
Group 10	4	4	4	4	4	4	4	4	4	4	4	4	4
Bus, Rail, and Truck Terminal													
Long Term Vehicle Storage													
Warehousing & Storage Facility													
Newspaper Offices and Distribution Service													
Lumber & Building Material Yard and Storage Facility													
Wholesale Trade Office and Storage Facility													
Heavy Equipment Sale, Rental, and Service													
Sand, Gravel, Coal & Earth Sales and Storage Facility													
Boat Sales, Storage and Service													
Recycling Center													
Vehicle Wholesale Auction													
Group 11	4	4	4	4	4	4	4	4	4	4	4	4	4
Wholesale Printing													
Laundry, Cleaning, and Dyeing Plant													
Facilities for Manufacturing, Processing, Assembly, Packaging, Bottling, and Canning													

SECTION 5-1414(A) - BUFFER YARD AND SCREENING MATRIX - ATTACHMENT A

ADJACENT LAND USE GROUPS													
PROPOSED LAND USE GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13
Group 12	4	4	4	4	4	4	4	4	4	4	4	4	4
Asphalt or Concrete Mixing Plant													
General Construction Company, including Hauling, Road Paving, Roofing, and Sewer													
Metal Fabrication Shop													
Metal Salvage and Open Storage Yard and Operation													
Agriculture Processing Facility													
Outdoor Movie Theater													
Wood Processing Facility or Sawmill													
Forging Plant													
Rifle and Pistol Range, outdoor													
Sewage Treatment Facility													
Sanitary Landfill													
Rendering or Tanning Plants													
Petroleum or Chemical Refining or Production													
Ship Yards and Boat Manufacture													
Junk Yard													
Fuel Sales													
Group 13	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A												
Farming, including livestock and horticultural activity													
Fur Bearing Animal Raising													
Stable and Equestrian Center													

SECTION 5-1414 B(1)
BUFFER YARD TYPE 1

<u>FRONT YARD BUFFER WIDTH</u>	<u>REQUIRED PLANT</u> <u>UNITS</u> <u>PER 100 LINEAL FEET</u>
10' Minimum	2 Canopy Tree(s) 0 Understory Trees 0 Shrubs 0 Evergreen Trees
<u>REAR YARD BUFFER WIDTH</u>	
10' Minimum	1 Canopy Tree(s) 4 Understory Trees 6 Shrubs 0 Evergreen Trees
<u>SIDE YARD BUFFER WIDTH</u>	
5' minimum	0 Canopy Tree(s) 4 Understory Trees 6 Shrubs 0 Evergreen Trees

SECTION 5-1414 B(2)
BUFFER YARD TYPE 2

<u>FRONT YARD BUFFER WIDTH</u>	<u>REQUIRED PLANT UNITS PER 100 LINEAL FEET</u>
15' Minimum	3 Canopy Tree(s) 2 Understory Trees 10 Shrubs 0 Evergreen Trees
<u>REAR YARD BUFFER WIDTH</u>	
20' minimum	2 Canopy Tree(s) 6 Understory Trees 10 Shrubs (75% of which must be evergreens) 0 Evergreen Trees
<u>SIDE YARD BUFFER WIDTH</u>	
15' minimum	2 Canopy Tree(s) 3 Understory Trees 8 Shrubs (75% of which must be evergreens) 0 Evergreen Trees

SECTION 5-1414 B(3)
BUFFER YARD TYPE 3

<u>FRONT YARD BUFFER WIDTH</u>	<u>REQUIRED PLANT UNITS</u> <u>PER 100 LINEAL FEET</u>
20' Minimum	3 Canopy Tree(s) 3 Understory Trees 24 Shrubs 0 Evergreen Trees
<u>REAR YARD BUFFER WIDTH</u>	
25' minimum	4 Canopy Tree(s) 7 Understory Trees 30 Shrubs (75% of which must be evergreens) 0 Evergreen Trees
<u>SIDE YARD BUFFER WIDTH</u>	
20' minimum	2 Canopy Tree(s) 5 Understory Trees 20 Shrubs 0 Evergreen Trees
<u>STRUCTURE REQUIRED IN REAR YARD</u>	A six foot high stockade fence, providing a minimum opacity of 95%, or a six foot high masonry wall.
<u>BERM REQUIRED ADJACENT TO AN ARTERIAL ROAD</u>	An earthen berm with a minimum height of four feet with a slope not to exceed 3:1 planted with turf or ground cover material.

SECTION 5-1414 B(4)
BUFFER YARD TYPE 4

<u>FRONT YARD BUFFER WIDTH</u>	<u>REQUIRED PLANT UNITS</u> <u>PER 100 LINEAL FEET</u>
20' Minimum	4 Canopy Tree(s) 3 Understory Trees 20 Shrubs 0 Evergreen Trees
<u>REAR YARD BUFFER WIDTH</u>	
30' minimum	4 Canopy Tree(s) 7 Understory Trees 15 Shrubs 10 Evergreen Trees
<u>SIDE YARD BUFFER WIDTH</u>	
20' minimum	2 Canopy Tree(s) 3 Understory Trees 25 Shrubs 6 Evergreen Trees
<u>STRUCTURE REQUIRED IN REAR AND SIDE YARD</u>	* A six foot high masonry wall (poured concrete, cement block, brick, etc.) providing a minimum opacity of 95%, or a stockade fence.

*** Note structures are required only where a use abuts a use of a lower intensity as defined on the Buffer Yard and Screening Matrix. Structures are not required between uses of equal intensity.**

SECTION 5-1414 B(5)
BUFFER YARD TYPE 5

(a) BUFFER YARD WIDTH: 100' Minimum

(b) REQUIRED PLANT UNITS PER 100 LINEAR FEET:

4 Canopy Trees
2 Understory Trees
50 Shrubs
2 Evergreen Trees

(c) PLANTING SIZE. Notwithstanding the plant sizes specified in Section 5-1403(A)(2), the plants for the Type 5 Buffer Yard shall be the following minimum sizes at the time of planting:

Canopy trees: 2.5 inch dbh caliper
Understory trees: 8 foot height.
Evergreen trees: 8 foot height
Shrubs: 30 inch height

(d) PLANT LOCATION: The plants required in paragraph (b) above shall be installed on the parcel as follows:

- (i) The plants shall be located within the first fifty feet of the required 100 foot Buffer Yard immediately adjacent to the right of way of Route 50.
- (ii) Each 100 foot segment of frontage shall contain the plants required per 100 linear feet.
- (iii) The plants shall be located in front of the linear element required in paragraph (f) below.
- (iv) The plants and the linear element shall be configured to align with the plants and the linear element on adjacent parcels, thereby creating a uniformly landscaped frontage along the right-of-way, where feasible.

(e) BOULEVARD PLANTINGS. The first 50 feet of the required 100 foot wide Buffer Yard immediately adjacent to the right-of-way shall consist of boulevard plantings as specified in the Type 5 Buffer Yard Plant List in Section 5-1414(C)(5) below.

(f) LINEAR ELEMENT. A linear element of not less than 40% of a parcel's frontage shall be provided within the Buffer Yard and shall consist of a stone faced feature and may also include a fence and/or hedgerow.

- (i) The stone faced feature (i.e. wall, pillar, sign, and the like) shall be faced with materials having characteristics similar to native stone. Notwithstanding the Section 5-200 height limitation for fences in front yards, the stone faced feature shall be a minimum of 3 feet in height. If combined with a fence or hedgerow, the stone faced feature shall have a minimum length equal to 10% of a parcel's frontage.
- (ii) Notwithstanding the height limitation of Section 5-200 for fences in front yards, the fence shall be a maximum height of 4.5 feet, as measured from the ground to its highest point, to include posts or other supporting structures. The fence shall be constructed of wood or a wood-like polymer in a rail, paddock, or horizontal board design and shall have a minimum opacity of 50%.
- (iii) The hedgerow shall consist of a minimum of 10 shrubs planted in a continuous row, planted 36 inches on center and at a minimum height of 30 inches. The shrubs shall be chosen from the Type 5 Buffer Yard Plant List in Section 5-1414(C). The shrubs used in the hedgerow do not count towards fulfilling the required plant units in paragraph (b) above.
- (iv) The linear element is not required to be a continuous element. However, if any portions of the linear elements overlap, then for the length of the overlapping elements – only one element can be counted towards satisfying the required length.
- (v) Areas of existing vegetation used to meet the Type 5 Buffer Yard plant requirements shall be excluded for the purposes of calculating the frontage length for determining the required minimum length of the linear element.
- (vi) The linear element does not have to be located parallel to the road, however, the required length is measured parallel to the road.
- (viii) The linear element can be used towards fulfilling the Peripheral Parking Lot Landscaping requirements in Section 5-1413(C).
- (g.) REDUCTION. Notwithstanding Section 5-1409, the Buffer Yard width may be reduced to 50 feet subject to the approval of the Zoning Administrator at the time of site plan or preliminary subdivision application. An application for Buffer Yard reduction shall include a demonstration by the applicant that adherence to the 100-foot Buffer Yard requirement would unreasonably constrain development due to topography or lot dimensions. Moreover, evidence shall be provided that all other methods available to alleviate the constraint have been exhausted. The request shall include a plan depicting the Buffer Yard reduction and the quantity, type and location of the plants units required in paragraph (b) above and the linear element required in paragraph (f) above.

(h.) OTHER LANDSCAPING AND SCREENING. Where the Ordinance requires the screening of parking, service and loading areas, and utility equipment from roads, such screening as may be necessary shall be in addition to the Type 5 Buffer Yard plantings and shall be provided within the Type 5 Buffer Yard, but outside of the first 50 feet of the required 100 foot wide Buffer Yard as measured from the right-of-way.

DRAFT

SECTION 5-1414(C)(1)

CANOPY TREE:

A deciduous tree, usually single trunked, with a definitely formed crown of foliage, which attains a mature height of at least 30 feet. Preferred species include, but are not limited to:

Common Name

Botanical Name

American Sycamore
Bradford Pear
Crimson King Maple
English Oak
Ginkgo (Male)
Japanese Pagoda
Japanese Zelkova
Japonica Regent
Littleleaf Linden
London Plane
Norway Maple
Pin Oak
Red Oak
Red Maple
Silver Linden
Sugar Maple
Sweet Gum
Thornless Honey Locust
Willow Oak
Yellowwood

Platanus occidentallis
Pyrus calleryana bradford
Acer plantanoindes Crimsom King
Quercus robur
Ginkgo bilboa
Sophora japonica
Zelkova serrata
Sophora japonica regent
Tilia cordata
Plantanus acerifolia
Acer platanoides
Quercus palustris
Quercus borealis
Acer rubrum
Tilia tomentosa
Acer saccharum
Liquidambar styraciflua
Gleditsia triacanthos inermis
Quercus phellos
Cladrastis lutea

SECTION 5-1414(C)(2)

EVERGREEN TREES:

A non-deciduous tree used for the purposes of screening, weather barrier, or accent planting. Preferred species include, but are not limited to:

Common Name

American Holly
Austrian Pine
Dark American Arborvitae
Eastern Red Cedar
Norway Spruce
White Pine

Botanical Name

Llex opaca
Pinus nigra
Thuja occidentalis nigra
Juniperus virginiana
Picea abies
Pinus strobus

DRAFT

SECTION 5-1414(C)(3)

UNDERSTORY TREE:

A deciduous or evergreen tree which attains a mature height of no greater than 30 feet. Understory trees often times prefer shade and grow naturally under a canopy of larger trees. Preferred species include, but are not limited to:

Common Name

Botanical Name

American Plum
Amur Maple
Dogwood
Downy Serviceberry
Flowering Cherry
Flowering Crabapple
Golden Raintree
Golden Chain
Purple Leaf Plum
Red Bud
Shadblow
Washington Hawthorne

Prunus americana
Acer griseum
Cornus florida
Amelanchier arborea
Prunus (various species)
Malus (various species)
Koelreuteria
Laburnum Vossi
Prunus cerasifera bliricana
Cercus canadensis
Amelanchier canadensis
Crataegus plaenopyrum

DRAFT

SECTION 5-1414(C)(4)

SHRUB:

An evergreen multi-trunked woody plant that usually attains a mature height of no greater than 10 feet. Preferred species include, but are not limited to:

Common Name

Botanical Name

Azalea

various species

Cotoneaster

various species

Chinese Holly

Llex cornuta

English Yew

Taxus baccata

Euonymus

various species

Japanese Holly

Llex crenata

Japanese Yew

Taxus cuspidata

Rhododendron

various species

Viburnum

various species

Winged Euonymus

various species

DRAFT

SECTION 5-1414(C)(5): PERMITTED TYPE 5 BUFFER YARD PLANTS

(a) General Requirements

- (i) For the purpose of reducing the monoculture disease risk, no one plant species can be used for more than 300 linear feet of frontage.

(b) Boulevard Plants – Permitted Canopy Trees

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<u><i>Acer rubrum</i> cvs.</u>	<u>Red Maple</u>	<u>'Brandywine'</u> <u>'Red Sunset'</u> <u>'October Glory'</u>		
<u><i>Acer saccharum</i> cvs.</u>	<u>Green Mountain Sugar Maple</u>	<u>'Green Mountain'</u>		
<u><i>Aesculus hippocastanum</i></u>	<u>Horsechestnut</u>			
<u><i>Fagus grandifolia</i></u>	<u>American Beech</u>			
<u><i>Fagus sylvatica</i> cvs.</u>	<u>European Beech</u>	<u>Various</u>		
<u><i>Liquidambar styraciflua</i> cvs.</u>	<u>Sweetgum</u>	<u>Various</u>		
<u><i>Platanus x acerifolia</i> cvs.</u>	<u>London Plane Tree</u>	<u>'Bloodgood'</u>		
<u><i>Platanus occidentalis</i></u>	<u>American Sycamore</u>			
<u><i>Quercus falcata</i></u>	<u>Southern Red Oak</u>			
<u><i>Quercus phellos</i></u>	<u>Willow Oak</u>			
<u><i>Quercus shumardii</i></u>	<u>Shumard Oak</u>			
<u><i>Ulmus Americana</i> cvs.</u>	<u>American Elm</u>	<u>'New Harmony'</u>		
<u><i>Ulmus parvifolia</i> cvs.</u>	<u>Lacebark Elm</u>	<u>Various</u>		

(c) Boulevard Plants – Alternative Canopy Trees

The following canopy trees can be used as a substitute to the required canopy trees if approved by the Zoning Administrator.

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<u><i>Betula nigra</i></u>	<u>River Birch</u>	<u>'Heritage'</u>	<u>Best adapted to moist soils; suitable for areas that are wet for a portion of the year, yet dry in summer and fall</u>	
<u><i>Carya spp.</i></u>	<u>Hickory</u>			<u>1" caliper allowed</u>
<u><i>Gleitsia triacanthos</i> var. <i>inermis</i> cvs.</u>	<u>Thornless Common Honeylocust</u>	<u>'Skyline' 'Moraine'</u>		<u>Some disease and insect problems</u>
<u><i>Populus deltoides</i> cvs.</u>	<u>Eastern Cottonwood</u>	<u>Various</u>	<u>Riparian areas only</u>	
<u><i>Quercus bicolor</i></u>	<u>Swamp White Oak</u>		<u>Moist bottomlands and streambanks</u>	
<u><i>Salix nigra</i></u>	<u>Black Willow</u>		<u>Riparian areas only</u>	
<u><i>Taxodium distichum</i> cvs.</u>	<u>Baldcypress</u>	<u>Various</u>	<u>Both wet areas and upland sites</u>	<u>Deciduous conifer</u>

(d) Non-Boulevard Plants – Permitted Canopy Trees

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<u><i>Aesculus flava</i></u>	<u>Yellow Buckeye</u>			
<u><i>Betula lenta</i></u>	<u>Black Birch</u>			
<u><i>Celtis occidentalis</i> cvs.</u>	<u>Hackberry</u>	<u>Various</u>		
<u><i>Fraxinus Americana</i> cvs.</u>	<u>White Ash</u>	<u>Various</u>		
<u><i>Fraxinus pennsylvanica</i> cvs.</u>	<u>Green Ash</u>	<u>Various</u>		
<u><i>Nyssa sylvatica</i> & cvs.</u>	<u>Black Gum</u>	<u>Various</u>		<u>Deep tap root; large calipers not recommended</u>
<u><i>Ostrya virginiana</i></u>	<u>Eastern Hophornbeam</u>			
<u><i>Prunus serotina</i></u>	<u>Black Cherry</u>			
<u><i>Quercus acutissima</i></u>	<u>Sawtooth Oak</u>			
<u><i>Quercus alba</i></u>	<u>White Oak</u>			
<u><i>Quercus coccinea</i></u>	<u>Scarlet Oak</u>			
<u><i>Quercus laevis</i></u>	<u>Turkey Oak</u>			
<u><i>Quercus nuttallii</i></u>	<u>Nuttall Oak</u>			
<u><i>Quercus palustris</i></u>	<u>Pin Oak</u>		<u>Open areas</u>	
<u><i>Quercus prinus</i></u>	<u>Chestnut Oak</u>			
<u><i>Quercus rubra</i></u>	<u>Northern Red Oak</u>			
<u><i>Quercus robur</i></u>	<u>English Oak</u>			
<u><i>Quercus stellata</i></u>	<u>Post Oak</u>			
<u><i>Quercus virginiana</i></u>	<u>Live Oak</u>			

(e) Boulevard Plants – Permitted Evergreen Trees

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<u><i>Cedrus deodara</i> & cvs.</u>	<u>Deodara Cedar</u>	<u>Various</u>		
<u><i>Cryptomeria japonica</i> cvs.</u>	<u>Lobbii Japanese Cryptomeria</u>	<u>'Lobbii'</u>		
<u><i>Ilex x attenuata</i> cvs.</u>	<u>Foster's Hybrid Holly</u>	<u>'Fosteri' (Foster's # 2)</u>		
<u><i>Ilex x 'Nellie Stevens'</i></u>	<u>Nellie R. Stevens Holly</u>			
<u><i>Ilex opaca</i></u>	<u>American Holly</u>			
<u><i>Juniperus virginiana</i> & cvs.</u>	<u>Eastern Redcedar</u>	<u>Various</u>		
<u><i>Magnolia grandiflora</i> cvs.</u>	<u>Southern Magnolia</u>	<u>'Claudia Wannamaker'</u> <u>'Edith Bogue'</u>		
<u><i>Magnolia virginiana</i> var. <i>australis</i></u>	<u>Sweetbay Magnolia</u>			
<u><i>Picea abies</i></u>	<u>Norway Spruce</u>			
<u><i>Picea orientalis</i> & cvs.</u>	<u>Oriental Spruce</u>	<u>Various</u>		
<u><i>Pinus strobus</i> & cvs.</u>	<u>White Pine</u>			
<u><i>Pinus taeda</i></u>	<u>Loblolly Pine</u>			
<u><i>Pinus virginiana</i></u>	<u>Virginia Pine</u>			

(f) Boulevard Plants – Permitted Understory Trees

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<u><i>Acer buergerianum</i></u>	<u>Trident Maple</u>			
<u><i>Aesculus sylvaticum</i></u>	<u>Painted Buckeye</u>			
<u><i>Amelanchier canadensis</i> cvs.</u>	<u>Shadblow Serviceberry</u>	<u>‘Autumn Brilliance’</u>		
<u><i>Amelanchier laevis</i></u>	<u>Allegheny Serviceberry</u>			
<u><i>Asimina triloba</i></u>	<u>Pawpaw</u>			
<u><i>Carpinus caroliniana</i></u>	<u>American Hornbeam</u>			
<u><i>Castanea pumila</i></u>	<u>Allegheny Chinkapin</u>			
<u><i>Cercis canadensis</i> cvs.</u>	<u>Eastern Redbud</u>	<u>Various</u>		
<u><i>Cornus kousa</i> cvs.</u>	<u>Kousa Dogwood</u>	<u>Various</u>		
<u><i>Crataegus viridis</i> cvs.</u>	<u>Green Hawthorn</u>	<u>‘Winter King’</u>		
<u><i>Diospyros virginiana</i></u>	<u>Persimmon</u>			
<u><i>Halesia caroliniana</i> & cvs.</u>	<u>Silverbell</u>	<u>Various</u>		
<u><i>Koeleruteria paniculata</i> & cvs.</u>	<u>Golden Raintree</u>	<u>Various</u>		
<u><i>Magnolia</i> x ‘Ballerina’</u>	<u>Ballerina Magnolia</u>			
<u><i>Oxydendron arboretum</i></u>	<u>Sourwood</u>			
<u><i>Parrotia persica</i> & cvs.</u>	<u>Persian Parrotia</u>	<u>Various</u>		
<u><i>Sassafras albidum</i></u>	<u>Sassafras</u>			
<u><i>Stewartia pseudocamellia</i></u>	<u>Japanese Stewartia</u>			
<u><i>Styrax japonicus</i> cvs.</u>	<u>Japanese Snowbell</u>	<u>Various</u>		

(g) Boulevard Plants – Permitted Hedgerow Shrubs

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<i>Buxus microphylla</i> cvs.	Littleleaf Box	Various		
<i>Buxus sempervirens</i> cvs.	Common Box	Various		
<i>Calycanthus floridus</i> cvs.	Sweetshrub	Various		
<i>Ilex glabra</i> cvs.	Inkberry	'Nigra' Various		
<i>Myrica cerifera</i> cvs.	Southern Waxmyrtle	Various		
<i>Prunus laurocerasus</i> cvs.	Cherrylaurel	'Otto Luyken' 'Schipkaensis'		'Schipkaensis' planted 48 inches on center

(h) Boulevard Plants – Permitted Non-Hedgerow Shrubs

<u>Botanical Name</u>	<u>Common Name</u>	<u>Acceptable Varieties & Cultivars</u>	<u>Suitability</u>	<u>Comments</u>
<i>Aronia arbutifolia</i> cvs.	Red Chokeberry	'Brilliantissima'		
<i>Buddleia davidii</i> cvs.	Butterfly Bush	'Black Knight' 'Nanho Blue'		
<i>Callicarpa dichotoma</i> cvs.	Purple Beautyberry	Various		
<i>Caryopteris x clandonensis</i> cvs.	Bluebeard	'Heavenly Blue'		
<i>Chimonanthus praecox</i>	Fragrant Wintersweet			
<i>Clethra alnifolia</i> cvs.	Summersweet Clethra	'Hummingbird'		
<i>Cornus alba</i> cvs.	Tatarian Dogwood	Various		
<i>Cornus sericea</i> cvs.	Redosier Dogwood	Various		
<i>Corylopsis pauciflora</i>	Buttercup Winterhazel			
<i>Corylopsis spicata</i>	Spike Winterhazel			
<i>Cotinus coggygria</i> cvs.	Common Smoketree	Various		
<i>Cotinus obovatus</i>	American Smoketree			
<i>Fothergilla gardenia</i> cvs.	Dwarf Fothergilla	Various		
<i>Fothergilla major</i> cvs.	Large Fothergilla	Various		

<u><i>Hamamelis mollis</i> cvs.</u>	<u>Chinese Witchhazel</u>	<u>Various</u>		
<u><i>Hamamelis vernalis</i> cvs.</u>	<u>Vernal Witchhazel</u>	<u>Various</u>		
<u><i>Hamamelis virginianan</i> cvs.</u>	<u>Common Witchhazel</u>	<u>Various</u>		
<u><i>Hamamelis x intermedia</i> cvs.</u>	<u>Witchhazel Hybrid</u>	<u>Various</u>		
<u><i>Hydrangea macrophylla</i> cvs.</u>	<u>Bigleaf Hydrangea</u>	<u>'All Summer Beauty'</u>		
<u><i>Hydrangea quercifolia</i> cvs.</u>	<u>Oakleaf Hydrangea</u>	<u>'Snow Queen'</u>		
<u><i>Ilex verticillata</i> cvs.</u>	<u>Winterberry</u>	<u>'Red Sprite'</u> <u>'Sparkleberry'</u>		
<u><i>Itea virginica</i> cvs.</u>	<u>Virginia Sweetspire</u>	<u>"Little Henry"</u>		
<u><i>Juniperus conferta</i> cvs.</u>	<u>Shore Juniper</u>	<u>'Blue Pacific'</u>		
<u><i>Juniperus chinensis</i> cvs.</u>	<u>Chinese Juniper</u>	<u>Var. <i>sargentii</i> 'Henry'</u>		
<u><i>Kalmia latifolia</i> cvs.</u>	<u>Mountain Laurel</u>	<u>Various</u>		
<u><i>Rosa</i> cvs.</u>	<u>Rose</u>	<u>'Elsie Mae'</u> <u>'Knock Out'</u> <u>'Pink Knock Out'</u>		
<u><i>Spiraea x bumalda</i> cvs.</u>	<u>Bumald Spirea</u>	<u>'Limemound'</u> <u>'Norman'</u>		
<u><i>Viburnum carlesii</i> cvs.</u>	<u>Koreanspice Viburnum</u>	<u>Various</u>		
<u><i>Viburnum dilatatum</i> cvs.</u>	<u>Linden Viburnum</u>	<u>'Erie'</u> <u>'Iroquois'</u> <u>'Catskill'</u>		
<u><i>Viburnum nudum</i> cvs.</u>	<u>Smooth Witherod</u>	<u>'Winterthur'</u>		
<u><i>Viburnum plicatum</i> var. <i>tomentosum</i> cvs.</u>	<u>Doublefile Viburnum</u>	<u>'Mariesii'</u> <u>'Shasta'</u>		
<u><i>Viburnum setigerum</i> cvs.</u>	<u>Tea Viburnum</u>	<u>Various</u>		
<u><i>Viburnum sieboldii</i> cvs.</u>	<u>Siebold Viburnum</u>	<u>'Seneca'</u>		
<u><i>Viburnum x burkwoodii</i> cvs.</u>	<u>Burkwood Viburnum</u>	<u>'Mohawk'</u>		
<u><i>Viburnum x 'Conoy'</i></u>	<u>Conoy Viburnum</u>			
<u><i>Viburnum x 'Eskimo'</i></u>	<u>Eskimo Viburnum</u>			
<u><i>Viburnum x juddii</i></u>	<u>Judd Viburnum</u>			
<u><i>Viburnum x pragnense</i></u>	<u>Prague Viburnum</u>			
<u><i>Vitex agnus-castus</i> cvs.</u>	<u>Chastetree</u>	<u>Various</u>		